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Yasuhito Inagaki

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SONNENSCHN NATH & ROSENTHAL LLP

P.O. BOX 061080

WACKER DRIVE STATION, WILLIS TOWER

CHICAGO, IL 60606-1080

EXAMINER

SHEH, ANTHONY H

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**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

### ATTACHMENT TO ADVISORY ACTION

1. In order to ensure a timely response to the after-final response filed June 15, 2010, the examiner of the instant application has been temporarily changed. Communications subsequent to this advisory action should be directed to the original (previous examiner). The current examiner's contact information may be found at the end of this advisory action.

2. Claims 30 and 37 are currently amended. The claims recite the newly presented limitation that the flame retarder is present in an amount from 0.0001 to 30 wt.%. The foregoing amendment is supported by pages 15 and 16 of the original disclosure. Claim 37 has also been amended to recite that the claimed resin composition additionally comprises an acrylonitrile-styrene resin. The foregoing amendment is supported by e.g. claim 43 and page 14 of the original disclosure.

3. The scope of claims 30 and 37 (and the claims dependent thereon) have been altered in a manner previously not presented. According the amendments present new issues which require further consideration and/or search. It is also believed that the amendments do not free the claims from the prior art. Accordingly, entry of the amendment is DENIED. The following advisory is given.

4. Claims 30 and 37 are rejected under 35 U.S.C. 103(a) as being unpatentable over **Inagaki et al.**, US 5,994,423 (hereafter '423). With respect to the new limitation that the flame retarder, corresponding to the '423 hydrophilic resin in terms of chemical structure and identity, is included in an amount of 0.0001 to 30 wt.%, the prior art composition may comprise up to 60 wt.% of an additional resin (col. 3, ln. 55-58), and carbon black and/or titanium oxide inorganic material in amount of 0.01 to 20 wt.%. Accordingly, the hydrophilic resin is the balance, i.e. the

Art Unit: 1796

quantity of hydrophilic resin may be as low as 20 wt.%. Clearly this formulation overlaps the claimed formulation.

5. It is well settled that where the prior art discloses an overlapping range, a *prima facie* case of obviousness is established. See *In re Harris*, 409 F.3d 1339, 1343, 74 USPQ2d 1951, 1953 (Fed. Cir 2005); *In re Peterson*, 315 F.3d 1325, 1329, 65 USPQ 2d 1379, 1382 (Fed. Cir. 1997); *In re Woodruff*, 919 F.2d 1575, 1578 16 USPQ2d 1934, 1936-37 (CCPA 1990); *In re Malagari*, 499 F.2d 1297, 1303, 182 USPQ 549, 553 (CCPA 1974). Therefore, it would have been obvious to one of ordinary skill in the art at the time of the instant invention to formulate the '423 composition to contain 20 wt.% of hydrophilic resin. Accordingly, the limitation is met.

6. With respect to the additional limitation of instant claim 37 which requires "an acrylonitrile-styrene resin," it is noted that the word "an" implies a generic term. '423 teaches as an additional resin acrylonitrile-butadiene-styrene (ABS) resin which falls within the claim genus (col. 3, ln. 19-21). Accordingly, the limitation is met.

### ***Response to Arguments***

7. Applicant's arguments filed June 15, 2010 have been fully considered but they are not persuasive. With respect to **Inagaki** et al., US 5,994,423 (hereafter '423), applicant argues that the newly presented limitations are not taught by the prior art reference. However, as established in the discussion in paragraphs 4-6 *supra*, a reasonable interpretation of the prior art is contrary to applicant's assertion.

8. With respect to **Nodera** et al., WO 2002/059206 (hereafter '206, for which US 2004/0054045, hereafter '045, has been adopted as an English-language equivalent), in view of **Nodera** et al., WO 2001/010956 (hereafter '956, for which US 6,727,312 has been adopted as an English-language equivalent), applicant argues that the aromatic vinyl resin does not "teach

Art Unit: 1796

or even fairly suggest” aromatic skeleton sidechains. The foregoing interpretation of the prior art is incorrect. An exemplary embodiment of '045 is a sulfonated polystyrene ('045: para. [0031]) which has phenyl groups, i.e. aromatic skeletons, off the main chain. The aromatic vinyl resin is contain in amount of 0.05 to 5% by mass ('045: para. [0021]). Accordingly, the argued limitations are met.

### ***Conclusion***

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Anthony H. Sheh whose telephone number is (571)-270-7746. The examiner can normally be reached on Monday thru Thursday, 9:30a to 3:30p.

10. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Vasu S. Jagannathan can be reached on (571)-272-1119. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

11. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Anthony H Sheh/  
Examiner, Art Unit 1796

/Vasu Jagannathan/  
Supervisory Patent Examiner, Art Unit 1796